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VALUATION OF PUBLIC SERVICE UTILITIES.

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There can be no difference of opinion as to the class of industries included under public service industries; no time, therefore, need be given to the discussion of their character or to an explanation of the relation which they hold to the industrial or social order. The only pertinent classification of public service industries in view of what I have to say is suggested by the fact that some are operated upon a perpetual franchise while others are operated on franchises which terminate at a specific date; this being the case, the question of classification may be dropped for the discussion. The technical process of making an appraisal of physical properties, or of the method of computing franchise values, is of little interest to those for whom this paper is prepared; and, for that reason, this class of questions also may be passed without comment.

Having thus set aside three of the points which might properly claim attention in any complete treatment of the subject, we are prepared, without further prefatory remark, to come at once to the heart of the question; namely, of what use is a valuation of the property of public service industries? My reply to this question rests upon three propositions:

1. An authoritative valuation is essential for determining the reasonableness of the price paid by the public for services rendered.
2. Without an authoritative valuation it would not be possible to administer in an equitable manner

laws for the control of the issue of securities by public service corporations.

3. The amount which a public service industry should pay annually to the public treasury, commonly, though erroneously, called taxes, cannot be determined independently of an analysis of the value of the industry considered as a commercial concern.

The above propositions will be considered in the order named.

I.

Relation of Valuation to Rates.

It not infrequently happens that a strong policy is made to appear weak by being burdened with claims it was never intended to carry. Commonly this method of weakening the force of an argument is the work of those who are opposed to the policy for which it stands; but, unfortunately, so far as the valuation of railways is concerned, this method is indulged by the professed friends as well as by the avowed enemies of valuation. The usual argument in support of railway valuation is that valuation is necessary for the application of cost accounting to transportation services and that cost accounting is the only logical and certain means by which the reasonableness or unreasonableness of a rate can be established. This is no time for a review of the limitations of cost accounting, nor is such a review necessary for the purpose contemplated by this paper. Its mention is only justified in order to clear the way for constructive analysis along broader lines. Speaking for myself, I do not believe that the principles which underlie cost accounting are pertinent for the solution of the problem of reasonable rates, nor do I have much confidence in the judgment of experts, whether they be

experts in the employ of the carriers or of commissions, who claim that they can compute the amount of net revenue contributed by a particular rate. This paper assumes that it lies beyond the ability of statistics and accounts to measure the specific cost of a specific service under specific conditions, and if the only argument that can be urged in favor of valuation is that it is necessary in order to work out the theory of specific costs, that argument is indeed weak. Who can defend a proposition that is urged on the ground of its necessity for the attainment of an end which for other reasons is unattainable?

What then, it will be asked, is the relation of valuation to the determination of reasonable rates, and how may that relation be urged in support of a general valuation of railway property? In order to answer this question, I must restate the cost principle so as to make it both reasonable and practicable. That the cost of doing a business is an essential element in arriving at a proper price for the service rendered, is universally conceded; but there are two ways in which the rule of cost may be applied. It may be urged, as already indicated, that specific cost should be measured against specific service; or it may be urged, as seems to many preferable, that total cost should be measured against collective service. If this latter statement of the rule be accepted, the argument for valuation is relieved from the embarrassment of carrying the questionable claims of cost accounting, but is in no way weakened so far as its fundamental propositions are concerned. This latter application of the rule of costs rests upon the assumption that the owners of property devoted to the public service are granted their constitutional rights, so far as rates are concerned, when it is shown that the aggregate of charges for the

aggregate of services rendered is adequate to afford a reasonable return upon necessary investment. I do not know of any case in which this idea, put in exactly this way, has received the unqualified approval of the courts. The tendency, however, is in this direction; and it is upon the importance of the full realization of this tendency that the argument for valuation must finally rest. There is no knowledge at the present time, nor indeed any pretense of knowledge, respecting the amount of private property invested in public service industries, and yet that knowledge is essential in order to enable the courts to exercise judgment as to the reasonableness of rates in the manner in which they say it must be exercised.

All this seems elemental and convincing. The impression, however, will be strengthened if we consider for a moment the kind of information with which the courts must now content themselves in the application of the rule laid down. The only general statement relative to property furnished by a corporation is found in the balance sheet; that is to say, in the statement of corporate assets and corporate liabilities. As matters stand in this country, the outstanding securities of a corporation can not be accepted as a measure of the property which should be supported by contributions from the public. Were this true, there would be no question of over- or under-capitalization. Nor can the market value of the securities serve as a measure of the investment which may reasonably claim support at the hands of the public, for the reason that the market price is a price which depends upon an existing schedule of rates and can not, therefore, be accepted in testing a rate schedule.

Many illustrations might be submitted showing that neither the par nor the market value of securities is a

measure of value to be supported by public contributions, but I shall content myself with a single class of cases. What can be said of an electric railway operating upon a limited franchise which sells securities to the full extent of what its commercial value would be if it had a perpetual franchise? What court in computing the cost of service would feel itself warranted in allowing an interest charge upon the full amount of such an issue of securities? These questions are too simple to require specific answer, and yet it is the rule rather than the exception that corporations which operate upon limited franchises received from municipalities issue securities far beyond the present value of the property, were that value to be computed in view of the fact that all rights of operation are to cease at a specific date. In this class of cases it is beyond question that outstanding securities are no measure of the property which has constitutional right as against the reduction of rates or charges, and the same conclusion would follow the discussion of any other class of cases. We may, therefore, pass without further comment the suggestion that the amount of outstanding securities is a measure of the property which the constitution had in mind when it says that property can not be taken without due process of law.

The case is not much better if we turn to the debit side of the balance sheet. It is true that the first item mentioned among assets is "cost of property" and, provided the accounts of the corporation have been properly kept from the beginning, commissions and courts would be able to read from the asset side of the balance sheet a figure which would properly express the constitutional definition of the value of the property; but as the Interstate Commerce Commission said in its twenty-second annual report to Congress: "No court, or commission,

or accountant, or financial writer would for a moment consider that the present balance sheet statements purporting to give the cost of property suggest even in a remote degree a reliable measure either of money invested or of the present value." This may be regarded as a sweeping statement, but no one acquainted with the financial history of great corporations or with the financial accounting of public service industries would venture to question its truth. In many cases the construction account bears no relation to the cost statement of the company that holds the title; in many cases physical property has been abandoned without corresponding credits on the property ledger; in many cases improvements have been made from revenue without charges to the property accounts; in many cases consolidations and reorganizations have been carried through without regard to the physical properties concerned or to the equities of the original investors; in many cases, indeed in most cases, the amount entered as cost of property is simply the par value of securities set up as an asset. Such being the situation, the balance sheet statement of cost of property is even less acceptable as a basis for working out the constitutional rule relative to the reasonableness of rates than the balance sheet statement of outstanding securities.

There are no other figures, however, furnished by the carriers which have any bearing whatever upon the constitutional definition of property, and, if the rule proposed by the courts relative to the reasonableness of rates charged by public service industries is to become a practical rule, it is essential that the government should undertake such an analysis of properties concerned as will enable the rule to be worked out in a reasonable manner. Looked at from this point of view, the problem of valuation is much broader than any particular program or

method of computation. It is rather an essential element in an existing situation. It is the next great step for which Congress must provide in order to realize that theory of supervisory control contemplated by the Act to Regulate Commerce as amended in 1906.

The above argument for valuation is greatly strengthened, when the question of reasonable rates is considered in connection with the fact that corporations engaged in the business of transportation are not all of the same class, and that any rule which might be equitable as applied to one class would lead to unjust and indefensible results if applied to another class. The situation here referred to, as well as the ideal which lies back of this argument for valuation, holds true in any large railway system created by the consolidation of previously competing lines. An analysis of such a system would show a gradation of lines beginning with those which are incapable of supporting themselves at the rates which are allowed and ending with those which, according to any conceivable rule for assigning revenues, show a revenue in excess of what would be necessary if the constitutional rule of reasonable rates were applied exclusively to lines of the highest class. It is commonly conceded as one of the social benefits of consolidation that territories, which, considered by themselves, could not support a railway on the basis of accepted rate schedules, are provided with transportation facilities because the lines which serve them are integral parts of a great system. This beneficent social result of consolidation, however, implies the annihilation of competition so far as the several classes of railways which make up a great railway system are concerned, and at this point our illustration ceases to reflect the conditions with which commissions are called upon to deal. It is one purpose of supervision by commissions to perpetuate the conditions

of competition in the business of transportation. This cannot be accomplished unless the agencies of governmental control recognize the fact that the railways with which they deal are of different classes and that a rate which would be reasonable for the roads most favorably situated would result in the bankruptcy of lines operating under inferior conditions. This is the situation, and it is largely because of the fact that inferior and superior railways are in competition for the same traffic that commissions and courts encounter serious difficulties in determining the reasonableness of a rate submitted in a specific case. This line of reasoning carried to its logical result would warrant the statement that there is no such thing as a reasonable rate *per se*. Every rate must be judged according to the place it occupies in a schedule of rates, and a schedule of rates for any particular carrier, in its turn must be judged according to the relation which it bears to the schedule of rates appropriate for other and competing carriers.

If considerations of this sort be accepted, it seems an essential part of any program for arriving at tenable conclusions relative to rates, to classify all common carriers, and to measure by some appropriate method the differences which exist between the various classes. Several lines of classification might be suggested but none of them is as simple, nor will prove to be as convincing, as a classification resting upon an analytical valuation of railway properties. In order to deal justly by those who invest in public service industries on the one hand, and by the different communities served by railways of different classes on the other, it is essential that legislators and commissions should exercise reasonable discrimination. This cannot be done unless the railway system is held in mind in its entirety, and perhaps one of the prime argu-

ments in support of a valuation of railway property springs from the fact that out of such a valuation there would emerge a comprehensive and at the same time a detailed picture of the railways of the country considered as a whole. The railway system of the United States is a unit and must be treated as a unit; at the same time it is made up of many parts, each of which has its peculiar interest and renders its peculiar service. How is it possible to deal in a discriminating manner with such a situation in the absence of comprehensive and detailed information as to the physical and commercial elements that make up that great system? This argument for valuation will be regarded as a weak argument by those who still insist on the morselization of transportation industries; it will be regarded as a strong argument, however, by those who regard the problem in a broad and comprehensive manner.

II.

Relation of Valuation to Capitalization.

The second argument in support of valuation rests upon the claim that an authoritative valuation is necessary in order to administer laws for the control of the amount of securities to be issued by public service industries in a manner equitable alike to the public and to the corporations. The consideration of this argument, however, is omitted for the reason that even its cursory discussion would extend this paper beyond the prescribed limits.

III.

Relation of Valuation to Taxation.

I shall not enter upon a discussion of the problem of railway taxation farther than to suggest the necessity of

an analyzed statement of values for its successful solution. The economist is familiar with the phrase, differential profit, and nowhere does the line of reasoning to which this phrase is related promise more far-reaching results than when the amount to be contributed to the public treasury by railways and other public service industries is under consideration. If what was said above relative to classification be accepted, it follows without question that the basis of a reasonable set of rate schedules for railways must be a schedule which will enable all roads which render a useful service to live and prosper. Any other conclusion would mean that certain parts of this country would not be provided with railway facilities necessary for their social life and industrial development. It is, however, evident that a set of rate schedules adjusted to this idea would contribute a revenue in excess of reasonable revenue to other roads more favorably situated. That is to say, these roads would be in the permanent enjoyment of a surplus profit over the constitutional limit. For myself, I cannot evade the conclusion that equity, as between various classes of roads, can never be attained until all the excess of revenue over the constitutional limit be made a contribution to the public treasury, and that this contribution be made as a substitute for all taxes of all kinds and all sorts. To work out this idea, or indeed to work toward this ideal, even under the form of a general property tax, calls for a properly analyzed and properly classified valuation of railway property.

The same thought may be stated in another way. Students of finance are familiar with what is known as the doctrine of "amortization", which, simply stated, means that a tax imposed upon property (under certain conditions) will be capitalized and the capitalized amount

will be deducted from its valuation to arrive at its selling price. If this be true, it is evident that the taxation of property implies a partnership between the government and the individual who holds the title to the property taxed. It is further evident that the balance sheet of a taxpayer, in case he keep a set of books, would fail to show, for example, that portion of the value which pertains to government,—that is to say, the capitalization of the annual tax. In the case of property subject to frequent purchase and sale, there is an automatic separation of the value which pertains to the public and that which pertains to the individual in his private capacity; in the case of public service industries, however, for whose property, considered as an industrial unit, there is no market and consequently no market price, it is not possible to rely upon purchase and sale to distinguish between that portion of value which pertains to the public and that which, in equity, pertains to the corporation. A formal valuation, therefore, is necessary in order to accomplish the result for public service industries which is automatically accomplished through commercial agencies in industries which are exposed to the control of commercial competition.

In the case of public service industries, however, the government is a partner in a peculiar sense. The municipalities furnish the streets for the operation of electric railways. They grant exclusive rights and assume unusual responsibilities. The industrial situation, also, wherever competition is limited in its application or works in an abnormal manner, enables industries of the class we are now considering to cover in their balance sheet statements of property, not only the amount necessarily contributed by stockholders and bond holders for its creation and operation, but amounts which, according

to any analysis of the situation from the social point of view, belong to the public. It seems highly desirable, therefore, in order that the financial relations which exist between the public and the corporations engaged in rendering public services may be clearly understood and accurately measured, that a valuation of all properties of this class be made; that the amount thus arrived at be classified as pertaining to the public and to the corporation; and that the contributions from the corporation, commonly called taxes, be made the equivalent of a dividend to the public on its portion of the total value.

It may at first seem a little extreme to analyze a tax into a dividend, but this analysis is not so foreign to current economic thinking, nor indeed to the laws in many of our states or to some of the early charters upon which certain railway corporations are now operating, as to warrant its being wholly ignored. At least it may be said, and this by itself is conclusive for valuation, that the mass of information which would be gathered together as the result of a general program of valuation would throw light upon many of the dark places which now exist when discussing the question of reasonable contributions for the support of the state from public service industries.

I have endeavored in this short paper to fix attention upon those fundamental propositions of equity and of industrial development which are now pressing for solution. Valuation is not a panacea. It is not the only thing that need be considered when considering the problem of public industries. It is, however, in my judgment, an essential part of any program for the satisfactory understanding of those complicated relations which exist between government and public service industries in our modern complicated industrial and political organization.